Pending Claims

This listing of claims is a courtesy copy of the pending claims. No amendments have been made in this Reply.

1. (Original) An encryption key interface system comprising:

a universal asynchronous receiver transmitter (UART) peripheral for communicating with a key variable loader (KVL) through at least one communications link;

a driver application associated with the UART peripheral for receiving and transmitting commands to the KVL; and

wherein the driver application operates to communicate key command information to the KVL without the use of a timer peripheral.

2. (Original) An encryption key interface system as in claim 1, further comprising:

a key management application for communication with the driver application for managing the key management information.

3. (Original) An encryption key interface system as in claim 2, further comprising:

a general purpose input output (GPIO) peripheral for communicating with the KVL to detect when the KVL is connected with the interface.

4. (Original) An encryption key interface system as in claim 3, further comprising:

a KVL detection application for managing operation of the GPIO peripheral.

5. (Original) An encryption key interface system as in claim 3 wherein the UART peripheral and the GPIO peripheral communicate with the KVL over separate data links.

6. (Original) An encryption key interface incorporated within an electronic device for communicating with a key variable loader (KVL) comprising:

a universal asynchronous receiver transmitter (UART) peripheral for transmitting and receiving key commands from the KVL;

a KVL driver application for communicating command information to the UART peripheral;

a KVL management application operating with the KVL driver application for interpreting key command data from the KVL; and

wherein the KVL driver operates without a timer peripheral enabling the UART peripheral to utilize parity error information to validate communication with the KVL.

7. (Original) An encryption key interface as in claim 6, further comprising:

a general purpose input output peripheral operating with a KVL detection application for detecting when a KVL is initiating communication with the electronic device.

8. (Original) An encryption key interface as in claim 6, wherein the UART peripheral and GPIO peripheral communicate with the KVL over separate communications links.

9. (Original) A method for using an encryption key interface for communicating key encryption information from a variable key loader (KVL) to an electronic device comprising the steps of:

detecting a first detection signal at a universal asynchronous receiver transmitter (UART) within the electronic device;

transmitting data from the KVL to the UART;

transmitting a second detection signal from the UART to a KVL application when the UART detects a receive data byte;

transmitting a third detection signal from the UART to the KVL application indicating all data has been received; and

transmitting a fourth detection signal from the UART to a KVL link layer application for sending subsequent data until all data has been transmitted by the UART.

10. (Original) A method for using an encryption key interface as in claim 9, wherein the first detection signal is a break detect indicating a unique KVL signature.

11. (Original) A method for using an encryption key interface as in claim 10, wherein the second detection signal is a receive data interrupt command indicating to the UART that data has been transmitted from the KVL.

12. (Original) A method for using an encryption key interface as in claim 11, wherein the third detection signal is idle pattern detect indicating a predetermined number of idle byte times have been received by the UART.

13. (Original) A method for using an encryption key interface as in claim 12, wherein the fourth detection signal is idle pattern detect indicating to continue transmitting another byte in the response message.